

REMARKS

Applicant requests the Examiner to withdraw the objection to the Abstract in view of the above amendments thereto. The phrase, "connected in parallel", has been set off by commas to clarify the meaning of the involved sentence.

Applicant also respectfully requests the Examiner to reconsider and withdraw the objections to claims 1-3 in view of the above corrective amendments thereto. Again, in claim 3 the phrase "connected in parallel" has been set off by commas to clarify the meaning of the involved clause.

Claims 1-5 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Vergnaud '087. Such a rejection requires that Vergnaud disclose, either expressly or inherently, each limitation of each of claims 1-5, or in other words, that each of claims 1-5 be readable on Vergnaud's disclosure/teaching. Applicant respectfully submits that clearly such is **not** the case here.

First, the present application clearly is an improvement on the invention disclosed in Vergnaud '087 which is assigned to the same assignee as the present application and which shares the common co-inventor Vergnaud.

Furthermore, Applicant's statement of prior work at specification page 3, lines 19-29, substantially tracks the summary of the invention described in Vergnaud '087 at column 3, lines 36-51.

Furthermore, Applicant notes that Applicant's Figs. 1-4 share many common reference numerals with Vergnaud's Figs. 1-6 and 8, with the one notable exception of Applicant's **measuring circuit 42, 42'** as illustrated in Applicant's Figs. 3, 4, 5 and 6.

As stated in Applicant's specification at page 4, lines 10-20,

For a comparator to be able to detect reliably if the voltage drop is greater than or less than a threshold value, a voltage drop of at least 50 mV is required, because of noise and the DC voltage offset to which the voltage measuring circuit may be subjected. This leads to using a resistor with a resistance of least 50 ohms to detect if the current is greater than a threshold value of 1 mA.

Furthermore, it is necessary to measure the remote power feed current to control a current limiter responsible for protecting the remote power feed device and the terminal against overcurrents. The maximum permitted current is typically 350 mA, in which case a resistance of 50 ohms produces **a non-negligible voltage drop of 17.5 V and a non-negligible dissipation of 6 W.**

Furthermore, as stated in Applicant's specification at page 5, lines 10-14, the "remote power feed device" of independent parent claim 1

causes a voltage drop that is just as **negligible** when the current is very much greater than the threshold value as when it is close to that threshold value, because the reduced resistance of the device when the current becomes very much greater than the threshold value tends to **compensate** the increased voltage drop due to the increased current.

Applicant respectfully submits that there is no disclosure (or even a suggestion) in Vergnaud '087 of Applicant's claimed "measuring device a resistive circuit **through which said remote power feed current flows** and which has a resistance that varies as a function of the current flowing through it, said resistance being lower if said current is very much greater than

said first threshold current, and means for comparing the voltage across said resistive circuit with a first threshold voltage".

As shown in Fig. 5 of Vergnaud, the remote power feed current from the remote supply 46 flows through **fixed resistors** R3 and R2 to the link L, whereas in **Applicant's invention** (as illustrated in Fig. 5, for example), the remote feed current flows through a "Non-Linear Resistive Circuit" (50) (of the "Current Measuring Circuit" 42 shown in Fig. 3) whose resistance varies inversely as a function of the current flowing through the circuit and which comprises the resistors R10 (50 Ω) and R11 (1 Ω) connected to the output 56 of the switch 44 (Fig. 3). The total resistance of the resistive circuit is the equivalent resistance of the resistors R10 and R11. The transistor T is connected in series with the resistor R11 (1 Ω), whereby **only when** the remote feed current "is very much greater than said first threshold voltage" is the transistor T conducting to connect R10 and R11 in parallel so that their equivalent resistance

$$\frac{R10 \cdot R11}{R10 + R11} \approx 1 \Omega. \text{ Otherwise, this resistance is } R10 = 50\Omega.$$

Thus, since claim 1 is not readable, either expressly or inherently, on Vergnaud's disclosure, Vergnaud is **incapable of anticipating** independent parent claim 1.

Since claim 1 is **not anticipated by Vergnaud**, it follows by definition that dependent claim 2 (2/1) also is not anticipated. Claim 2 further is not anticipated because of the recitations of the "second threshold voltage" and "means for comparing the voltage across said resistive circuit with [said] second threshold voltage".

Similarly, dependent claim 3 (3/2/1) is by definition not anticipated by Vergnaud, and it further is not anticipated at least because of the limitation, "switching device...connecting said second resistor and said first resistor, connected in parallel, in series in said remote power feed circuit if...".

Dependent claims 4 and 5 are not anticipated by Vergnaud at least for the same reason that their independent parent claim 1 is not anticipated.

New dependent claim 6 (6/3) is not anticipated for the same reason that its parent and intermediate claims are not anticipated, and further because it is limited to the transistor switch T/T' as illustrated in Applicant's Figs. 5 and 6.

In summary, then, Applicant respectfully requests the Examiner to reconsider and withdraw the rejection under 35 U.S.C. § 102(b) or else explicitly to point out the exact manner in which she reads claims 1-6 on Vergnaud's disclosure.

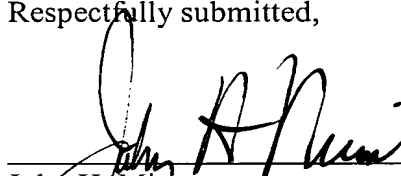
Thus, Applicant respectfully submits that the application now is in condition for allowance with all of claims 1-6; however, if for any reason the Examiner feels that the application is not now in condition for allowance, the Examiner is respectfully requested to **call the undersigned attorney** to discuss any unresolved issues and to expedite the disposition of the application.

Applicant hereby petitions for any extension of time which may be required to maintain the pendency of this application, and any required fee for such extension is to be charged to

AMENDMENT UNDER 37 C.F.R. § 1.111
U.S. APPLN. NO. 10/028,915

Deposit Account No. 19-4880. The Commissioner is also authorized to charge any additional fees under 37 C.F.R. § 1.16 and/or § 1.17 necessary to keep this application pending in the Patent and Trademark Office or credit any overpayment to said Deposit Account No. 19-4880.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "John H. Mion", is written over a horizontal line.

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IN THE DRAWING:

Please replace the original drawing sheet 3/6 with the enclosed replacement formal drawing sheet 3/6 in which Fig. 3 has been amended to insert the reference numeral R3 to conform to the specification at page 8, line 31.

Attachment: Replacement drawing sheet 3/6